

09/864,756

(FILE 'HOME' ENTERED AT 16:54:58 ON 08 JUL 2004)

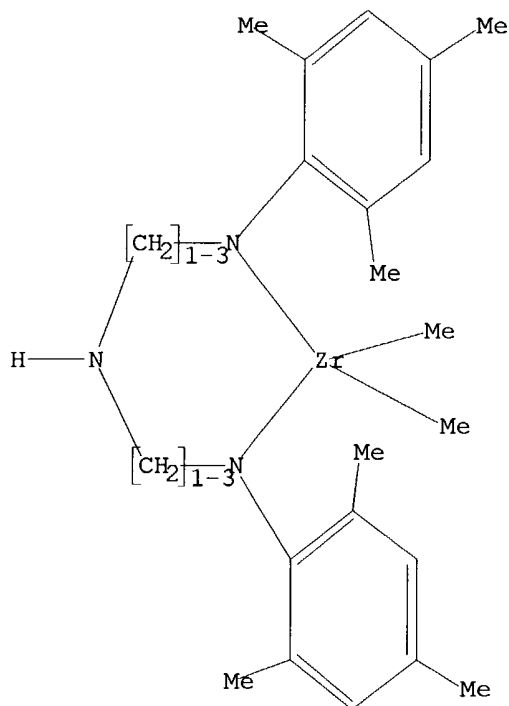
FILE 'REGISTRY' ENTERED AT 16:56:18 ON 08 JUL 2004

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 16:56:50 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 33 TO 447

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 16:56:57 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 236 TO ITERATE

100.0% PROCESSED 236 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

L3 4 SEA SSS FUL L1

=> fil caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	155.42	155.84

FILE 'CAPLUS' ENTERED AT 16:57:03 ON 08 JUL 2004  
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FILE COVERS 1907 - 8 Jul 2004 VOL 141 ISS 2  
 FILE LAST UPDATED: 7 Jul 2004 (20040707/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3  
 L4 3 L3

=> d 1-3 bib abs

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2000:824311 CAPLUS  
 DN 134:5262  
 TI Catalysts and method for polymerization of olefins  
 IN McConville, David H.; Schrock, Richard R.  
 PA Univation Technologies, LLC, USA; Massachusetts Institute of Technology  
 SO PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000069922	A2	20001123	WO 2000-US13312	20000515
	WO 2000069922	A3	20010208		
	W: AU, BR, BY, CA, CN, CZ, ID, IL, IN, JP, KR, MX, NO, PL, RU, SG, SK, TR, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6271325	B1	20010807	US 1999-312878	19990517
	EP 1185563	A2	20020313	EP 2000-932437	20000515
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TR 200103289	T2	20020321	TR 2001-20010328920000515	
	BR 2000010534	A	20020416	BR 2000-10534	20000515
	JP 2002544339	T2	20021224	JP 2000-618337	20000515
	AU 756239	B2	20030109	AU 2000-50159	20000515
	TW 526207	B	20030401	TW 2000-89109277	20000515

EG 23015	A	20031231	EG 2000-624	20000515
US 2001041778	Al	20011115	US 2001-864756	20010524
ZA 2001009439	A	20030217	ZA 2001-9439	20011115
NO 2001005613	A	20011116	NO 2001-5613	20011116
PRAI US 1999-312878	A	19990517		
WO 2000-US13312	W	20000515		

OS MARPAT 134:5262

AB This invention relates to a composition of matter represented by formula (I), and to a polymerization process comprising combining an olefin in the gas or slurry phase with an activator, a support and a compound represented by formula (I): wherein M is a group 3 to 14 metal, each X is independently an anionic leaving group, n is the oxidation state of M, m is the formal charge of the YZL ligand, Y is a group 15 element, Z is a group 15 element, L is a group 15 or 16 element, R1 and R2 are independently a C1 to C20 hydrocarbon group, a heteroatom containing group, silicon, germanium, tin, lead, phosphorus, a halogen, R1 and R2 may also be interconnected to each other, R3 is absent, or is hydrogen, a group 14 atom containing group, a halogen, a heteroatom containing group, R4 and R5 are independently an aryl group, a substituted aryl group, a cyclic alkyl group, a substituted cyclic alkyl group, or multiple ring system, R6 and R7 are independently absent or hydrogen, halogen, a heteroatom or a hydrocarbyl group, or heteroatom containing group. Ethylene and hexene were copolymd. using a catalyst system containing  $[(iPr_n(o-C_6H_4))_2O]ZrCl_2 \cdot C_7H_8$  and Me aluminoxane.

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:790856 CAPLUS

DN 134:100963

TI Preparation and Activation of Complexes of the Type  
 $[(mesityl)NCH_2CH_2)_2NX]ZrMe_2$  (X = H, Me) with  $[Ph_3C][B(C_6F_5)_4]$  or  $[PhNMe_2H][B(C_6F_5)_4]$

AU Schrock, Richard R.; Casado, Arturo L.; Goodman, Jonathan T.; Liang, Lan-Chang; Bonitatebus, Peter J., Jr.; Davis, William M.

CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA

SO Organometallics (2000), 19(25), 5325-5341

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 134:100963

AB The zirconium di-Me complexes  $[N_2NX]ZrMe_2$  ( $N_2NX = [(MesNCH_2CH_2)_2NX]$ ; Mes = mesityl; X = H (1a), Me (1b)), have "mer" structures in the solid state in which the amido nitrogens occupy "axial" positions in a trigonal bipyramid. The reaction of 1b with 1 equivalent of  $[Ph_3C][B(C_6F_5)_4]$  followed by addition of di-Et ether yielded the ether adduct  $\{[N_2NMe]ZrMe(Et_2O)\}^+$  (with  $[B(C_6F_5)_4]^-$  as the anion), an x-ray study of which revealed it to be a fac trigonal-bipyramidal species in which the di-Et ether is coordinated in an apical position. The reaction of 1b with 1 equivalent of  $[PhNMe_2H][B(C_6F_5)_4]$  led to  $\{[N_2NMe]ZrMe(NMe_2Ph)\}[B(C_6F_5)_4]$ , solution NMR studies of which suggest a structure analogous to that of  $\{[N_2NMe]ZrMe(Et_2O)\}^+$ . Heating solns. of  $\{[N_2NMe]ZrMe(NMe_2Ph)\}[B(C_6F_5)_4]$  led to C-H activation in one mesityl o-Me group and formation of methane. The reaction of 1b with 0.5 equiv of  $[Ph_3C][B(C_6F_5)_4]$  yielded  $\{[N_2NMe]ZrMe\}_2(\mu-Me)[B(C_6F_5)_4]$  (5b), an x-ray diffraction study of which revealed an almost linear ( $167.4^\circ$ ) Me bridge linking two distorted TBP moieties through the apical positions (average Zr-C(bridge) = 2.48 Å, average Zr-C(terminal) = 2.24 Å). The equatorial Me groups in 5b exchange readily between Zr centers, while the bridging Me group and the equatorial Me groups exchange relatively slowly on the NMR time scale, but still rapidly on the chemical time scale. Exchange of free  $[N_2NMe]ZrMe_2$  with the  $[N_2NMe]ZrMe_2$  fragment in 5b is also facile on the chemical time

scale. The reaction of 1b with 1.0 equiv or more of [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>] led to formation of a cationic species (6b), two forms of which could be observed at low temperature. Activation of 1a with [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>] yielded only one cationic form of 6a at low temps. Exchange of Me groups between 6a and 6b is slow on the chemical time scale. All evidence is consistent with the observation of different ion pairs of 6b at low temps.

RE.CNT 68      THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4    ANSWER 3 OF 3    CAPLUS    COPYRIGHT 2004 ACS on STN  
AN    1999:346522    CAPLUS  
DN    131:144898  
TI    Synthesis of Group 4 Complexes that Contain the Diamidoamine Ligands,  
      [(2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NR]<sub>2</sub>- ([Mes<sub>2</sub>N<sub>2</sub>NR]<sub>2</sub>-; R = H or CH<sub>3</sub>), and  
      Polymerization of 1-Hexene by Activated [Mes<sub>2</sub>N<sub>2</sub>NR]ZrMe<sub>2</sub> Complexes  
AU    Liang, Lan-Chang; Schrock, Richard R.; Davis, William M.; McConville,  
      David H.  
CS    Department of Chemistry, Massachusetts Institute of Technology, Cambridge,  
      MA, 02139, USA  
SO    Journal of the American Chemical Society (1999), 121(24), 5797-5798  
      CODEN: JACSAT; ISSN: 0002-7863  
PB    American Chemical Society  
DT    Journal  
LA    English  
AB    Zr complexes that contain the [(2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NR]<sub>2</sub>- ([Mes<sub>2</sub>N<sub>2</sub>NR]<sub>2</sub>-;  
      R = H or Me) ligand, along with [Mes<sub>2</sub>N<sub>2</sub>NH]TiMe<sub>2</sub> and [Mes<sub>2</sub>N<sub>2</sub>NH]HfMe<sub>2</sub>  
      complexes were prepared. The activation of the Zr di-Me complexes by  
      [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>] for the polymerization of 1-hexene at temps. up to 30° is  
      also reported. The crystal and mol. structures of [Mes<sub>2</sub>N<sub>2</sub>NMe]ZrMe<sub>2</sub> were  
      determined by x-ray crystallog.

RE.CNT 28      THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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